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October 26, 1999

Ms. Ursula Kramer, Director
Division of Air Quality
Utah Department of
Environmental Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820

Attention Mr. Nando Meli

Dear Ms Kramer:

Notice of Intent to Test Burn Alternate Fuel - Supplemental Information

We had the opportunity to meet with Messrs. Nando Meli and Tim Blanchard of your staff on October 20 to discuss the Notice of Intent the Los Angeles Department of Water and Power (LADWP) (Operating Agent for the Intermountain Power Project) submitted to you on October 6, 1999. During the meeting, Messrs. Meli and Blanchard requested the following additional information to supplement the Notice of Intent:

Alternate Fuel Test Plan

The test plan for the trial test burn of petroleum coke is enclosed. The maximum amount of petroleum coke that will be burned during the test is 50,000 tons.

Test Burn - Summary of Results

LADWP will submit a report to you summarizing the following results of each of its tests on various blends of petroleum coke and coal:

- scrubber efficiency (will be measured by continuous emissions monitoring system [CEMS])
- SO2, NOx and particulate matter emission rates (will be measured by CEMS)

Environmental Benefits

Petroleum coke has a higher thermal energy per pound than coal, thus requiring less tonnage burned for comparable heat input. In addition, we will be modifying our

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operating process in order to increase the efficiency of the desulfurization process; thus, a net emissions increase is not anticipated.

Petroleum coke also has significantly less ash than coal (about .5% ash in pet coke versus 10% in coal) which will result in a significant reduction in ash loading on IGS's fabric filters, less particulate matter emissions, and less ash going to a landfill.

Schedule for Test Burn

We previously stated to you that IGS would receive and experimentally burn pet coke over a 45-day period at various blends. We are planning a seven-day test burn and a subsequent 21-day test burn. We have requested a total of 45 days to provide for any complications that may arise.

If you have any questions or require further information, please contact me at (213) 367-0409.

Sincerely,

JODEAN M. GIESE
Manager
Corporate Environmental Services

Enclosure

c: Mr. Tim Blanchard
Division of Air Quality
Utah Department of
Environmental Quality

bc: Ms. Patti Kimes
Radian International

Ms. S. Gale Chapman, IPSC
Mr. Stan Smith, IPSC
Mr. Blaine Ipson, IPSC
Mr. Rand Crafts, IPSC
Mr. Lance C. Lee, IPA

Michael J. Nosanov
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Petroleum Coke Test Burn Plan

Purpose:
The purpose of this test is to determine the feasibility of petroleum coke (pet coke) as a supplemental boiler fuel. The test will be divided into two parts: a short Phase I with only one unit train of pet coke and Phase II with three unit trains. The short duration of Phase I will only allow for a preliminary feasibility test of the blending, handling, and combustion characteristics of pet coke. Phase II will be used to determine optimum operating conditions and the effects on boiler slagging and fouling.

General Description Phase I:
One unit train (approximately 10,000 tons) of pet coke will be used during the Phase I. The pet coke will be burned in only one unit at approximately 20% blend. Blending of the pet coke with the coal will be done in the active reclaim area using the rotary plow feeders. The coal-pet coke blend will be burned on all burner rows. On the first day of the test, only an amount equivalent to four hours of combustion will be sent up to the unit. This will allow the unit's time to recover in the event major combustion problems occur. On the second day, an amount equal to eight hours of combustion will be sent up to the unit, and on the third and subsequent days, it will be sent up to the unit for full-time combustion until the balance of the pet coke is consumed.

General Description Phase II:
Up to four unit trains (approximately 40,000 tons) of pet coke will be burned during the phase II test. Once again, the pet coke will be burned only in one unit at the same blend rate. Blending will be done in the same way as the Phase I test except the blend will be burned full time from the beginning of the test which will last approximately 21 days. For this test, the unit will be operated at different loads to determine flame and boiler stability at lower loads. Sometime during the test period, the unit will be taken to minimum and will remain there for approximately four hours.

Test Termination:
The test will be terminated if any of the following occurs:

- Failure to maintain permitted stack air quality requirements
- SO2 removal efficiency below 90%
- Pulverizer or burner line fires
- Excessive boiler slagging or fouling
- Excessive burner flame instability
- Coal feeder chute or silo plugging
- Excessive mill capacity problems
- All pet coke is burned
- Any other problems that might affect generation

AQCS Operation:
Our existing requirement for S02 emissions is 0.15 lbs./MBTU. Last year, the average S02 emission was 0.07 lbs./MBTU and approximately 93% removal. The addition of the pet coke will double the amount of S02 entering the scrubber. For this test, we will be trying to maintain the emissions at approximately the same level by increasing the removal efficiency. This will be accomplished through the following methods:

Phase I
For this short test burn, Unit 1 removal efficiency will be increased temporarily by changing the scrubber pH set point from 5.7 to 6. This will hopefully increase the removal efficiency to around 97%. This change should only be implemented for a short period since the higher pH increases the potential for scrubber scaling.

Phase II
If pet coke is burned on a large-scale basis, scrubber efficiency will be improved by adding an organic acid to the scrubber liquid. For this reason, we may use organic Dibasic Acid (DBA) at a concentration of around 2000 mg/l in the reaction tanks. If used, the DBA will be added to the system through the limestone slurry storage tanks.

Emissions monitoring will be done by the existing plant Continuous Emissions Monitors (CEMs) which will verify compliance with 90% removal and 0.15 lbs/MBTU limit.